File Transfers Tips

Category: File Transfers

When transferring files to NAS systems, there may be some ways to improve your performance without modifying your system (see <u>TPC Performance Tuning for WAN Transfers</u>). Below are some quick and easy techniques to try that may improve your performance rates when transferring files remotely to or from NAS.

- Transfer files from the /nobackup file system, which is often faster than the locally mounted disks.

- If you are using SCP, try adding the "-C" option to enable compression:

```
$ scp –C filename user@remotehost.com:
```

  This can sometimes double your performance rates.

- For SCP transfers, use a low process-overhead cipher like *arcfour*:

```
$ scp –carcfour  filename user@remotehost.com:
```

  This can increase your rates by 5x, compared to older methods like *3des*.

- If you are transferring from Lou, make sure your file is online first. Use the following DFM commands to determine this:

```
$ dmls –al filename    # show the status of your file.
$ dmget filename       # retrieve your file from tape prior to transferring.
```

  Get the full list of <u>DMF commands</u>.

- Use the bridge nodes to transfer files instead using of the Pleiades and Columbia front ends. These hosts have 10-Gigabit interfaces and more memory to handle both multiple and large file transfers.

- If you are transferring many small files, try using the *tar* command to compress them into a single file prior to transfer. Copying one large file is faster than transferring many small files.

- For files larger than a gigabyte, we recommended using <u>BBFTP software</u>, which can achieve much faster rates than single-stream applications such as SCP or RSYNC.

If you continue experiencing slow transfers and want to work with a network engineer to help improve file transfers, please contact support@nas.nasa.gov.